January 13, 2017
1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Region 3 Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation, P.O. Box 1175, Helena, MT 59624
Madison Conservation District
U.S. Army Corps of Engineers, Helena
State Historic Preservation Office, Helena

Ladies and Gentlemen:

Enclosed is an Environmental Assessment (EA) prepared for the Future Fisheries Improvement Program (FFIP). The Program tentatively plans to provide partial funding toward a project that would restore a severely degraded reach of Moore's Creek, a tributary to the Madison River. Improvements include stream channel restoration, fencing, riparian plantings, livestock management, and irrigation improvement. The project site is located immediately West of Ennis in Madison County.

Please submit any comments by 11:59 PM on February 12, 2017 to Montana Fish, Wildlife & Parks at the address listed above. The funding for this project through the FFIP is contingent upon approval being granted by the Fish & Wildlife Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Michelle McGree, Program Officer
Habitat Bureau
Fisheries Division
e-mail: mmcgree@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Moore's Creek channel and riparian restoration

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP tentatively plans to provide partial funding toward stream channel restoration, riparian fencing and revegetation on this section of Moore's Creek. As a separate component of this project, a livestock management plan will be developed and there will be improvements in irrigation efficiency. Improvements will be made along 1,800 feet of stream. Because riparian fencing falls under a categorical exclusion, this environmental assessment will focus on the channel restoration and revegetation portions of the project.

I. Location of Project:

This project will be conducted on Moore's Creek, a tributary to the Madison River, located immediately West of Ennis within Township 6S, Range 1W, Sections 05 and 08 in Madison County (Figure 1).

II. Need for the Project:

One goal within FWP's Statewide Fisheries Management Plan for the fisheries management program is to "restore and enhance degraded fisheries habitats." By implementing an improvement project and creating/restoring important habitat, this proposed project would help meet this goal. This area of Moore's Creek was likely degraded due to a combination of past management practices such as over grazing, water diversion, and stream channelization. Negative impacts, including increases in stream temperatures and sediment and nutrient loading, have been observed; this project aims to make vital improvements that will allow the stream to function normally and reduce the potential for nutrient and sediment inputs. Improved habitat, cover, and reduced sediment inputs should positively impact fish habitat. The current landowners are committed to a comprehensive restoration effort.

III. Scope of the Project:

The project proposes to restore the impacted stream reach to the proper dimensions based on slope, flow regime, soils, and reference conditions. The stream reconstruction will utilize appropriately sized gravel,

and the bank treatments will be comprised of a cobble toe, live sod coir fabric mats, and a wetland plant species mix. Riparian plants will be comprised of native species including willow, shrubs, and trees. The overall goal is to address the current degraded conditions in Moore's Creek and improve the overall health of the stream. This project is expected to cost $195,414.20. Of this total, the FFIP would be contributing up to $20,020.80 to complete the project. The remaining costs would be considered matching contributions, and include the funds below:

Contributor	In-kind services	In-kind cash
Landowner	$972.00	$2,909.60
NRCS		$84,891.00
Northwestern Energy		$40,000.00
Madison Conservation District	$600.00	
HB 223		$15,000.00
Volunteers	$1,000.00	
Private		$10,000.00
Total: $155,372.60		

IV. Environmental Impact Review Checklist:

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment

Project Title: Moore's Creek channel and riparian restoration
Division/Bureau: Fisheries Division / Habitat Bureau (FFIP)
Description of Project: The FFIP tentatively plans to provide partial funding toward stream channel restoration, riparian fencing and revegetation on this section of Moore's Creek. Improvements will be made along 1,800 feet of stream. Because riparian fencing falls under a categorical exclusion, this environmental assessment will focus on the channel restoration and revegetation portions of the project.

A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture			X			X
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)			X			X
4. Existing water right or reservation				X		

5. Vegetation cover, quantity and quality			X			X
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species				X		
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation				X		
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

V. <u>Explanation of Impacts to the Physical Environment</u>

1. Geology and soil quality, stability and moisture

This project is expected to improve soil stability through reduced erosion. The riparian plantings are intended to encourage root growth and hold banks together. Soil would be contained within the streambanks and would not erode into the stream. The overall impact is expected to be positive.

3. Water quantity, quality, and distribution.

No changes in streamflow would occur in Moore's Creek as a result of the proposed project. However, the bank treatments may affect the edge of the stream and therefore could impact

turbidity. To address turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. A 318 authorization will be obtained, if necessary, to meet short-term water quality standards. Long term, the project is expected to improve water quality. Because Moore's Creek is slated for a TMDL document, this project will be an early step to address the degradation and is expected to be a positive impact.

5. Vegetation cover, quantity and quality

This project would improve vegetation cover, quantity, and quality by revegetation of the stream banks, floodplain, and riparian area. Vegetative communities will be actively created through planting and native seeding. Increased vegetative cover should provide shade, which is considered habitat for aquatic species. This project will result in a functional and diverse stream and riparian corridor, which will greatly improve the vegetative cover, quantity, and quality.

7. Terrestrial or aquatic life and/or habitats.

This project would restore and revegetate the stream banks, floodplain, and riparian area on 1,800 feet of Moore's Creek. Long term, the project intends to provide additional shade and reduce erosion, which should improve spawning habitat and could provide cooler water for aquatic life. Areas without accumulations of fine sediment are required for spawning as well as habitat for other organisms. Cooler temperatures will improve conditions for resident trout and other aquatic species.

10. Changes to abundance or movement of species.

Reduced sediment and improved habitat has the potential to improve fish population abundance through improved spawning and rearing habitat. Vegetative cover can provide shade and reduce water temperature, which can have a positive impact on survival. Any changes to the abundance of fish species as a result of this project is considered positive.

VI. Explanation of Impacts to the Human Environment

8. Cultural and historic resources.

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of the project, and any potential concerns will be addressed.

VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects.

VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative.

If no funding is provided through the FFIP, either the applicant would have to seek additional sources of funding to complete the project, or the affected area of Moore's Creek would continue to be degraded, with significant sediment inputs and unfavorable water temperatures.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to restore the Moore's Creek stream channel, riparian area, and floodplain to a functional, healthy condition, thereby improving conditions for fish populations.

IX. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

Madison Conservation District

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

3. Is an EIS required?

No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish & Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all individuals and groups listed on the cover letter and will be published on the FWP webpage: **www.fwp.mt.gov**.

5. Duration of comment period?

Public comment will be accepted through 11:59 PM on February 12, 2017.

6. Person(s) responsible for preparing the EA.

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FIGURE 1: project location